electrophoretic display elements are selectively deposited in substantial registration with a first electrode. Each of the first plurality of display elements comprises a capsule containing a plurality of a first species of particles that are responsive to a first applied electric field and have a first optical property. A second plurality of electrophoretic display elements are selectively deposited in substantial registration with a second electrode. Each of the second plurality of display elements comprises a capsule containing a plurality of a second species of particles that are responsive to a second applied electric field and have a second optical property.

Independent claim 21 recites a method of manufacturing a color electrophoretic display by providing a substrate and selectively depositing upon the substrate at least two electrodes. A first plurality of electrophoretic display elements are selectively deposited in substantial registration with the first electrode. Each of the first plurality of display elements comprises a capsule containing a plurality of a first species of particles that are responsive to a first applied electric field and have a first optical property. A second plurality of electrophoretic display elements are selectively deposited in substantial registration with the second electrode. Each of the second plurality of display elements comprises a capsule containing a plurality of a second species of particles that are responsive to a second applied electric field and have a second optical property.

Applicants submit that Fergason '686 and Fergason '322 fail to teach or suggest Applicants' amended claim 1 and claim 21, because when viewed alone or in proper combination, these references fail to teach or suggest a few limitations of each of these claims. First, both claims recite a step of manufacturing a color electrophoretic display having a first electrode and a second electrode disposed on the same substrate. In contrast, Fergason '686 and Fergason '322 teach liquid crystal color displays with electrodes stacked on top of one another. Specifically, Fergason '686 describes a first electrode mounted to a support, a liquid crystal layer disposed over the first electrode and a second electrode disposed over the liquid crystal layer (see, e.g., Fergason '686 column 10, lines 15-65, column 19, lines 24-68 and column 20, lines 1-23; and FIGS. 1, 2 and 6-9). Fergason '322 describes and illustrates a pair of electrodes 24 and 26 on opposite sides of picture elements 14 and 14', where the picture elements are formed of liquid crystal material. (Fergason '322 column 13, lines 39-42, column 15, lines 40-46, column 17, lines 29-34, column 22, lines 61-68, column 29, lines 14-23, column 31, lines 41-57; and

FIGS. 3, 8, 9, and 14). Because electrodes 24 and 26 are on opposite sides of picture elements 14 and 14', it is not possible that they are disposed on the same substrate. The electrodes in Fergason '686 and Fergason '322 sandwich colored liquid crystal material and are connected by and address their respective displays through a circuit, see, e.g., Fergason '686 FIGS. 2, 24-27, 29-31 and Fergason '322 FIGS. 3 and 14. As a result, Fergason '686 and Fergason '322 fail to teach or suggest the step of providing a substrate having at least two electrodes disposed or deposited thereon as explicitly recited by claims 1 and 21.

Additionally, Fergason '686 and Fergason '322 teach color liquid crystal displays. When these references are viewed alone or in proper combination they fail to teach or suggest a color electrophoretic display as set forth in Applicants' amended claim 1 and in claim 21. Applicants teach that electrophoretic particles "may be either positively charged or negatively charged" and they "do not tend to move absent an electric field." (Page 13, lines 7-15). Applicants further teach that electrophoretic particles migrate from a first electrode to a second electrode upon application of an appropriate voltage potential. (Page 15, lines 1-15). In contrast, Fergason '322 teaches, at least at column 4, lines 1-5, that the response of liquid crystal material is to "align with respect to the [electric] field." (See also, e.g., Fergason '686, column 1, lines 39-47). While electrophoretic particles migrate or physically move between electrodes upon application of an electric field, liquid crystal material will merely align or reorient upon application of an electric field, therefore, liquid crystal material relies on a different mode of operation than the claimed electrophoretic particles. Accordingly, Fergason '686 and Fergason '322 fail to teach or suggest multiple limitations explicitly recited by amended claim 1 and claim 21.

Applicants thus submit that amended claim 1 and claim 21, are novel and non-obvious because neither Fergason '686 nor Fergason '322, taken singly or in proper combination, teaches or suggests all the elements of Applicants' claims 1 and 21. Consequently, claims 2-5 and 22-23 are novel and non-obvious as well, because they depend from base claims 1 and 21 respectively.

CONCLUSION

In view of the foregoing, Applicants respectfully submit that all of the pending claims, 1-5 and 21-23 are novel, non-obvious and are in condition for allowance.

If, in the Examiner's opinion, a telephonic interview would serve to clarify issues and expedite the prosecution of the present application, the undersigned attorney would welcome the opportunity to discuss any outstanding issues, and to work with the Examiner toward placing the application in condition for allowance.

Respectfully submitted,

Date: April 17, 2003
Reg. No. Limited Recognition under 10.9(b)
Tel. No. (617) 248-7808
Fax No. (617) 248-7100

Duan Wu
Attorney for Applicants
Testa, Hurwitz, & Thibeault, LLP
High Street Tower
125 High Street
Boston, MA 02110

Marked-Up Copy of Claim Amendment

1. (Twice Amended) A method of manufacturing a color electrophoretic display comprising the steps of:

(a) providing a substrate having at least a first electrode and a second electrode disposed thereon;

(b) selectively depositing a first plurality of electrophoretic display elements in substantial registration with [a] said first electrode, each of said first plurality of display elements comprising a capsule containing a plurality of a first species of particles, said first species of particles responsive to a first applied electric field and having a first optical property; and

(c) selectively depositing a second plurality of electrophoretic display elements in substantial registration with [a] said second electrode, each of said second plurality of display elements comprising a capsule containing a plurality of a second species of particles, said second species of particles responsive to a second applied electric field and having a second optical property.

2610781_1